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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,659	12/21/2001	Christer Aslund	2640-102	1985

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EXAMINER

JENKINS, DANIEL J

ART UNIT PAPER NUMBER

1742

DATE MAILED: 09/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,659

Applicant(s)

ASLUND, CHRISTER

Examiner

Daniel J. Jenkins

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-7, 9-12, 15, 17-18 and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Examiner finds no support for the limitation to "of well over about 0.1% by weight" as found in claim 1 in the disclosure as originally filed. Additionally the lower limitations to 0.4% and 0.145% find no support in the disclosure as originally filed.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 8, 13, 14, 16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Kankawa et al.

Kankawa et al. disclose a method for forming a sintered part comprising :

providing a powder mixture comprising a metal powder and a binder (col. 9, lines 27-30);

forming a green body (39-40);

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removing the binder from the green body under a controlled atmosphere (col. 10, lines 38-40); and

sintering the debound green body to form a sintered part (col. 10, lines 45-51).

Kankawa et al. further disclose wherein the metal powder is selected from a group comprising steel powder (col. 9, line 48).

Kankawa et al. further disclose wherein the binder includes gelatin (col. 8, line 41).

Kankawa et al. further disclose debinding and sintering temperatures within Applicant's range (col. 10, line 44 and col. 10, line 51), inherently removing volatile components and burning non-volatile components and leaving residual carbon in the sintered part.

However, Kankawa et al. do not disclose wherein the carbon content is more than about 0.5% by weight (a limitation found at page 4, lines 18-20).

Kanakwa et al. discloses a binder similar in amount and composition as disclosed by Applicant. The Examiner asserts that the removal of the residual binder after degreasing (as found at col. 10, lines 38-44) would inherently result in a residual carbon content meeting Applicant's lower limitation.

5. Although claim 3 is rejected in paragraph 2 above, the Examiner notes that the limitation to the graphite addition is still disclosed as follows:

Kankawa et al. disclose the invention substantially as claimed (see paragraph 4 above).

However, Kankawa et al. do not disclose adding graphite to the powder mixture.

Kankawa et al. do disclose that his powder mixture can contain alloys.

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It is common knowledge in the prior art add graphite to steel powders to be sintered in the same field of invention for the purpose of increasing the alloy hardness of the formed part.

It would have been obvious to one having ordinary skill in the art at the time of the invention to add graphite to the invention of Kankawa et al. in order to increase the hardness of the formed sintered part.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Jenkins whose telephone number is 703-306-4157. The examiner can normally be reached on M-TH6:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Daniel J. Jenkins
Primary Examiner
Art Unit 1742

dj
August 22, 2003